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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,181	04/13/2004	Mukul Chawla	CISCP372/7752	6362
22434	7590	05/16/2007		
BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			EXAMINER BAKER, STEPHEN M	
			ART UNIT 2112	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/824,181

Applicant(s)

CHAWLA ET AL.

Examiner

Stephen M. Baker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-28 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 111606.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 5, 7, 8 and 18, "associated with" is considered vague if intended to mean "incorporated within" or the like.

Claims 4 and 6 recite limitations already found in claim 1 and thus apparently should be canceled.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-9, 11, 14-17 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,243,846 to Schuster *et al* (hereafter "Schuster") in view of U.S. Patent Application Publication 2003/0226092 to Kim *et al*.

Schuster discloses arrangements for encoding error correction packets to supplement received data packets and for decoding a subset of the combination of data and parity packets after transmission over the network (Internet) to recover lost data packets. Schuster's RTP protocol is tunneled via TCP/IP, thus an "FEC tunnel" is

evident. Schuster does not teach varying the degree of error correction coding responsive to transmission loss.

Kim teaches varying the degree of error correction coding responsive to transmission loss (paragraph 0060). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate Kim's feature of varying the degree of error correction coding responsive to transmission loss into the coding system disclosed by Schuster. Such an incorporation would have been obvious because Kim's adaptive FEC minimizes FEC overhead.

Regarding claims 2, 3, 24, 25, 27 and 28, copying of data packets to an encoding buffer in Schuster's arrangements allows the data packets to be transmitted before generation of the error correction packets is completed, thereby eliminating data packet transmission delay (col. 9, lines 23+).

Regarding claims 4-8, The network path between Schuster's encoder and decoder "associates" Schuster's encoder and decoder with network end-points, edge switches, and network nodes, as the encoder and decoder may be located in a computer terminal, network server, hub or router (col. 17, lines 53-57).

Regarding claim 9, although Schuster mentions Reed-Solomon codes as good FEC codes, and suggests that alternatives may be used to cross-wise parity, Schuster does not specifically mention using Reed-Solomon coding instead of cross-wise parity. Official Notice is taken that using Reed-Solomon coding to generate error correction packets was well known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to

substitute Reed-Solomon coding for parity coding in Schuster's error correction packets. Such a substitution would have been obvious because using Reed-Solomon coding to generate error correction packets was already well known.

Regarding claim 14, Schuster's internet data packets are presumably part of a communication session.

Regarding claim 15, Schuster's encoding is presumed to occur in the network layer, in the environment of a hub or router, for example, as Schuster's error correction packets are provided with IP headers.

Regarding claims 16 and 17, the Internet is understood to be usable as a unicast and multicast network.

Regarding claims 23 and 26, Schuster's reception of data packets, at a network server, hub or router for example, requires an interface to the source of data packets, and Schuster's encoding requires a processor.

4. Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster in view of Kim, and further in view of U.S. Patent No. 6,895,019 to Gibson *et al* (hereafter "Gibson").

Schuster does not disclose using a timer for deciding that packets in Schuster's error correction block of data packets are lost. The packet recovery advantage of using a timer to detect lost packets was conventional and well known at the time the invention was made, as evidenced by Gibson. At the receiver in Gibson's arrangement, processing of the packets in a chunk is assisted by a timer that is set upon receiving the first packet of the packet block (col. 9, lines 21+). It would have been obvious to a

person having ordinary skill in the art at the time the invention was made to implement Schuster's packet recovery with a timer for detecting lost packets Schuster's error correction block. Such an implementation would have been obvious because Schuster's system would otherwise evidently become stalled if the last packet of the error correction block was lost, and because the packet recovery advantage using a timer to detect lost packets was conventional and well known at the time the invention was made, as evidenced by Gibson.

Allowable Subject Matter

5. Claim 12 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (571) 272-3814. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques H. Louis-Jacques can be reached on (571) 272-6962. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Stephen M. Baker
Primary Examiner
Art Unit 2112

smb